CHARGE NUMBER: Project 1901

PROJECT TITLE: Biochemical Modification of Tobacco

PERIOD COVERED: September 1-30, 1985

PROJECT LEADER: D. M. Teng

DATE OF REPORT: October 7, 1985

I. Flue Curing Studies

Objective: Alter conventional flue curing condition by maintaining sufficient moisture in the leaf at elevated temperature to enhance the leaf proteases activities so the modification of leaf protein will be more complete.

Status: Total of four sets of experiments were completed. Test curings were conducted at high temperature-high humidity condition for different periods of time. The lamina and stems were then directly dried, using the conditions for normal stem drying.

Plans:
1. Stem the samples
2. Chemical analyses.
3. Biochemical evaluations.
4. Subjective evaluations.

II. Air Curing Studies

Objectives: To determine the effect of moisture on air-curing of burley tobaccos.

Status: Burley tobacco plants were stalk-cut and hung in chambers, with four moisture levels, for air-curing. Air-curing will continue for the next six to eight weeks.

Plans:
1. Complete the air curing.
2. Sample during different stages of curing.
3. Chemical analyses.
4. Subjective evaluations.

III. Direct Utilization of Tobacco

Objective: To determine the feasibility of producing acceptable smoking materials with improved chemical, biochemical and subjective characteristics without going through conventional curing.

Status: Control and Ethryl-treated tobaccos were dried and shredded. Stemming, drying and shredding were conducted by the Development personnel.

Plans:
1. Tobacco materials will be treated under different conditions and then submitted for chemical, biochemical and subjective evaluations.

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